# DEVELOPMENT OF A SOFTWARE PACKAGE FOR CALCULATING CURRENT RATING OF MEDIUM VOLTAGE POWER CABLES

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**BY**

**D.G.A.K. Wijeratna**

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**Project Supervisors: Prof. J.R. Lucas, Dr. J.H.C. Peiris, Dr. H.Y.R. Perera**

# ABSTRACT

CableAmp, a Windows based software has been developed to calculate the cable ampacity of medium voltage power cables laid in free air or directly buried in the ground. The highly graphical user interface allows easy usage. The user inputs the required data of the cable design as well as the cable installation method. CableAmp then calculates the continuous current rating (at 100% load factor) of the power cables laid in free air or directly buried in the ground. It is applicable to extruded solid insulation, rated from 6 kV to 33 kV. An increased peak current rating, called the cyclic current rating, can also be obtained from the software package for a specified load profile. The calculation procedure is in accordance with International Standard IEC 287.

The report presents the theory for the software, and also validates the results obtained by the software by comparison with manufacturers current ratings for standard cables.